

Notice of Allowability

Application No.

10/810,048

Examiner

Leon Y. Lum

Applicant(s)

WIRIX-SPEETJENS, ROEL

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 30 September 2005.
2. ☒ The allowed claim(s) is/are 22-36 and 39-40.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 20051208.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>20051208</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

Specification

1. The amended abstract submitted 30 September 2005 has been acknowledged and entered.

Examiner's Amendment to the Record

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John Carson on 07 December 2005.

3. The application has been amended as follows:

In claim 22, lines 3-5, the phrase "a plurality of current-carrying structures having a non-constant charge current density when conducting a current" has been changed to --a plurality of current-carrying structures, each structure

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configured to produce a non-constant charge current density along a length of the structure in the direction of current flow when conducting a current--.

In claim 36, after "is", --substantially a-- has been inserted.

In claim 36, line 2, the phrase "sharkfin-like or triangular-like or sawtooth-like" has been changed to --sharkfin, triangle, or sawtooth--.

In claim 40, line 1, "The device according to Claim 22," has been deleted.

In claim 40, lines 1-2, the phrase "said field minima are the result of the non-constant charge current density" has been changed to --at least one field minimum in one of the said structures is the result of the non-constant charge current density within the structure when conducting the current--.

In claim 40, line 1, before ", wherein", the phrase

--A device for controlling transport of magnetic beads between a position X and a position Y along a path P, the device comprising:

a plurality of current-carrying structures having a non-constant charge current density when conducting a current, said current-carrying structures being substantially electrically isolated from each other;

a current source configured to alternately provide a current to each of said current-carrying structures to generate a series of successive field minima of magnetic fields to which the beads are attracted forming the path P between the position X and the position Y, wherein the current-carrying structures are positioned sufficiently close together to generate said series of subsequent field minima of magnetic fields-- has been inserted.

4. The following changes to the drawings have been approved by the examiner and agreed upon by applicant: Figures 1, 3-4, and 7 will be replaced. In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

5. The following is an examiner's statement of reasons for allowance:

The prior art neither teaches nor suggests a device with a plurality of current-carrying structures, each structure configured to produce a non-constant charge current density along a length of the structure in the direction of current flow when conducting a current. The prior art also neither teaches nor suggests that at least one field minimum in a structure is the result of a non-constant charge current density within the structure when conducting a current.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. Claims 22-36 and 39-40 are allowed as amended by the Examiner's Amendment above.

8. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure:

Gascoyne et al (US 2002/0036141 A1) teach a patterned electrode array with triangle or saw-tooth patterns that produce an electric field.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leon Y. Lum whose telephone number is (571) 272-2878. The examiner can normally be reached on weekdays from 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (571) 272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leon Y. Lum
Patent Examiner
Art Unit 1641



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12/22/05